

Amendments to Drawings:

The attached drawing sheets consist of a replacement sheet containing Figs. 14 and 15 and a supplemental drawing sheet including Fig. 14a. These sheets, which include Figs. 14, 14a and 15, replace the original sheet including Figs. 14 and 15. In Fig. 14, a numbering correction was made as well as a portion of the drawing is highlighted which is shown as an enlarged section in new Fig. 14a.

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1 - 2; 4 - 8; 10 - 21 and 23 - 25 are currently pending in this application. Claims 3 and 9 have been canceled without prejudice. Claim 22 is withdrawn from consideration. Claims 1 - 2; 4 - 8; 10 - 21 and 23 - 25 have been amended to correct minor typographical errors, to remove element numerals, correct translation discrepancies and more distinctly claim subject matter which the Applicants regard as the invention. In the specification, paragraphs [0005] and [0063] have been amended to correct typographical errors and to improve readability of the application. Paragraph [0063] has also been amended to incorporate subject matter of originally filed claims 5, 18 , 23 and 25. Paragraph [0048.1] has also been added in conjunction with new Fig. 14a of the drawings.

In the drawings, Figure 14 has been amended to correct element numbering and to show a portion that is depicted as enlarged in new Figure 14a. Applicants submit that no new matter has been introduced into the application by these amendments.

Objections to the Drawings

In the Action, the Drawings were objected to because:

- a. The drawings allegedly fail to show the following claim features:

i. A "perforated" cap

Applicants respectfully disagree and point out that a perforated cap is shown in Figs. 14 and 14a as element numbered 48, which is a disk with a larger perforation punched therethrough.

ii. Claim 2, lines 4 - 6: "each of the retainers at least partially engages the second clamping ring by a segment cut out of two other segments that point in directions opposite one another".

iii. Claim 11, lines 4 -6: "the retainers engage the other clamping ring by a segment cut out from two additional segments that each point in one direction of the axis of rotation and away from one another".

The amendments to claims 2 and 11 correct an inadvertent translation error, and obviate the objection.

iv. Claims 8, 16, 19, 21, & 23 - 25: all the limitations therein.

Applicants respectfully disagree with the Action. These claims generally recite:

The coupling arrangement "further comprising at least one tongue protruding from the perforated cap, the tongue engages the second clamping ring by the at least one segment that is cut out from the cut-out segments, and which is oriented in one direction of the axis of rotation."

This refers to the tongue 50 that extends from the perforated cap 48 engaging

in the recess 51 of the second clamping ring 45. Contact is made in the circumferential direction when the tongue is rotated. This is clearly shown in Figs. 14 and 14a, and would certainly be understood by the skilled artisan in the context of the present application and description. See also Figs. 4, 6b, and 8.

Applicants submit that all of the limitations in the above claims are represented in Figs. 14, 14a and 15.

b. 37 C.F.R. § 1.84(km) because the scale of the drawings is allegedly too small to show the detail of the elected species without crowding.

Applicants have provides supplemental Fig. 14a which is an enlarged portion of Fig. 14, thus obviating the objection.

c. 37 C.F.R. § 1.84(p)(4) because the reference character "49" was used to designate both a ring-shaped element and a cut-out segment.

The amendment to paragraph [0063] corrects this inadvertent error.

d. 37 C.F.R. § 1.84(p)(5) because:

v. Reference character S appears at Fig. 15 but not in the description.

Applicants note that reference character "S" is in the description at paragraph [0050].

vi. Reference character $\phi/2$ appears at page 16, line 23 but not in the drawings.

Applicants call to the Examiner's attention that the reference character ϕ is introduced in paragraph [0055] as a rotational angle. The term " $\phi/2$ " simply means one-half the rotational angle ϕ , or the rotational angle ϕ divided by two ($/2$).

Replacement sheets including Figures 14 and 15, which has been revised to show a portion of Fig. 14 that is shown as enlarged in new Fig. 14a are submitted herewith. The withdrawal of the objection to the drawings is respectfully requested.

Objections to the Specification

The Action objected to the specification because page 2, line 14 (paragraph [0005]) erroneously referred to a non-existent U.S. Patent. After a diligent search, the correct patent number was not found. Therefore, the sentence containing the erroneous reference has been deleted thus rendering the objection moot. The Action also objected to the specification at page 16, lines 1 & 2 (paragraph [0063]) for allegedly including a nonsensical phrase. The specification has been amended to improve readability of the translation of the priority application.

The specification was also objected to as failing to comply with 37 C.F.R. § 1.71 and 1.75(d)(1) because the detailed description of the elected species fails to provide proper antecedent basis. The amendment to paragraph [0063] which

incorporates the claim language and obviates the objection under 37 C.F.R. § 1.71 and 1.75(d)(1).

The withdrawal of the objections to the specification is respectfully requested.

Claim Objections

In the Action, claims 1 and 2 were objected to because of typographical errors and confusion with reference numerals. The amendment to the claims obviates the claim objection. The withdrawal of the objection to the claims 1 and 2 is respectfully requested.

Claim Rejections - 35 USC § 112

Claims 2 - 8, 11 - 21, 24 and 25 were rejected in the Action under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. The amendments to claims 2, 7 and 11 obviate the rejection to claims 2 - 8, and 11 - 20. The below remarks deal with claims 21, 24 and 25.

The Action states that there is no description in the elected species of the limitation, in claim 21 of, "the actuating element comprises a recess . . . where the recess may be pivoted." Applicants respectfully disagree with the Action. The elected embodiment, as shown in Fig. 15, comprises recess 51 which engages tongue 50, shown in Fig. 14. The recess 51 is pivotable when the outer clamping ring 45 is

rotated about axis 44a in order to activate the coupling. This is also described in the application in paragraph [0063].

The Action also states that there is no description in the elected species of the limitation, in claim 24 of a retainer and an actuating body are on a common perforated cap. The term "common" has been deleted from the claim. The term "perforated cap" is represented in Figs. 14 and 14a by element numeral 48. The perforated cap is a "washer" like element made of sheet metal having a through hole punched so that it is "perforated" therethrough. This structure is also described in paragraph [0063].

Claims 8, 17, 21 and 23 - 25 were rejected in the Action under 35 U.S.C. § 112, second paragraph as indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention.

The amendments to claims 8 and 17 obviate the rejections to those claims. The following remarks will deal with claims 21, and 23 - 25.

In the Action, claims 21 and 23 - 25 were rejected for reciting "an actuating element." The Action states that "it is not known what or who actuates the actuating element or how any why the actuating element is actuated."

Applicants respectfully disagree with the rejection. What, who or why actuates the actuator is not claimed by any of these claims. Furthermore, the

specification points out the actuator's "what, who or why" in paragraphs [0005]; [0022]; [0023]; [0054]; [0025]; [0055]; [0056]; [0061]; [0062]; and [0063].

The Action separately rejected claim 23 for insufficient antecedent basis for the limitation "the clamps." The amendment to claim 23 obviates the rejection to that claim.

The Action separately rejected claim 24 for insufficient antecedent basis for the limitation "the actuating elements." The amendment to claim 24 obviates the rejection to that claim.

Based upon the above amendments and arguments, the withdrawal of the rejections under 35 U.S.C. § 112 is respectfully requested.

Claim Rejections - 35 USC § 102

Claims 1, 9, 10, 21 and 23 were rejected in the Action under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 5,511,642 to Klotz. The Action states:

Fig. 3 shows a coupling arrangement comprising a first clamping ring 86; a second clamping ring 90; clamping bodies 106 situated radially between the clamping rings; one clamping ring 86 fitted inside the other clamping ring 90, concentrically with the axis of rotation; a first retainer 108 is provided on the first clamping ring 90;

and a second clamping ring 108 is arranged in a fixed manner in a longitudinal direction of the axis of rotation by the retainers 108. Fig. 4 shows the inner surface of the second clamping ring 90 is grooved around its circumference and includes radial ramped shaped projections 96.

The present invention as currently claimed is a coupling arrangement comprising a first clamping ring, a second clamping ring, and clamping bodies situated radially between the clamping rings, one clamping ring is fitted inside the other, concentrically with the axis of rotation, and at least a first retainer is provided on at least one of the clamping rings, and a second retainer is arranged in a fixed manner in a longitudinal direction of an axis of rotation, the clamping rings and the clamping bodies are held together in a longitudinal direction of the axis of rotation by the retainers, and wherein the clamping rings are formed sheet metal parts.

Klotz does not teach the limitation that the clamping rings are formed sheet metal parts as is now claimed. Furthermore, Klotz describes a clutch assembly that is able to rotate in only one direction. As now claimed, the invention, provides for the economical manufacture of such clamping rings when mass-produced. The bearing surfaces with the ramp-like projections may be manufactured for example

by drawing or rolling the metal, and do not need to be brushed free of shavings or chips afterwards.

In view of the above remarks, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b).

Claim Rejections - 35 USC § 103

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 31 38 466. German Patent No. DE 31 38 466 relates to a rolling freewheel having a covering disk 23 to close an lubricating opening. Since it deals with a rolling freewheel, there can also be no clamping bodies held to the retainers. The reference deals with a construction unit. Accordingly, this § 103 rejection should be withdrawn.

Claims 1 - 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 9 23 760. German Patent No. DE 9 23 760 deals with a needle bearing, whose races depict flanges and thus is non-analogous. The bearing is not frictionally adjustable and does not teach the ramp-like projections. Accordingly, this § 103 rejection should be withdrawn.

Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 11 28 229. German Patent No. DE 11 28 229 deals with a freewheel coupling with a resilient wedge ring (2), which serves as a cage for the roller bearing. German Patent No. DE 11 28 229 does not teach a retainer. Accordingly, this § 103 rejection should be withdrawn.

Claims 1, 7 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 198 07 108. German Patent No. DE 19 807 108 does not teach a ramp-like projection. Furthermore, there is no teaching of the clamping ring formed from sheet metal. Accordingly, this § 103 rejection should be withdrawn.

Claims 1 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 196 26 959. German Patent No. DE 196 26 959 shows a pinch roller cage in whose pocket, the pinch rollers are arranged. Therefore, the cage cannot be firmly held to one of the two locking rings. Accordingly, this § 103 rejection should be withdrawn.

Claims 1 - 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 195 35 889. German Patent No. DE 195

35 889 shows a freewheel coupling with at least one radial bearing. The clamping bodies are guided in a cage. Therefore one of the two clamping bodies cannot be secured. Accordingly, this § 103 rejection should be withdrawn.

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 195 11 188. German Patent No. DE 195 11 188 discloses a freewheel coupling which shows a clamp ring which extends over the area of a ramped clamping body and a race for a roller bearing. The edges as support elements cannot therefore keep both sides of the clamping bodies held to each other. Accordingly, this § 103 rejection should be withdrawn.

Claims 1 - 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 42 38 147. German Patent No. DE 42 38 147 shows a radial needle bearing and no freewheel coupling. Accordingly, this § 103 rejection should be withdrawn.

Claims 1 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of German Patent No. DE 23 41 247. German Patent No. DE 23 41 247 deals with a bearing, whose races depict flanges and thus is non-analogous.

Applicant: Dörrie et al.
Application No.: 10/694,588

Claims 1 - 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of European Patent No. EP 10 67 303. In European Patent No. EP 10 67 303, the retainers are not fixedly associated and the clamp rings are not formed of sheet metal. Accordingly, this § 103 rejection should be withdrawn.

Claims 1 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious in view of European Patent No. EP 047 47 026. In European Patent No. EP 047 47 026, the rollers are retained by a cage and not by a clamp ring that is fixedly associated with a retainer. Accordingly, this § 103 rejection should be withdrawn.

Based on the arguments presented above, reconsideration withdrawal of all of the 35 U.S.C. § 103 rejections is respectfully requested.


Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

Applicant: Dörrie et al.
Application No.: 10/694,588

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 2; 4 - 8; 10 - 21 and 23 - 25, is in condition for allowance and a notice to that effect is respectfully requested.

Dörrie et al.

By 
Robert J. Ballarini
Registration No. 48,684
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

RJB/pp

Enclosures (2)